

Abstract of the Invention

The present invention is a flow distributor and integral bed support for a chromatography column. The flow distributor has an outlet extending through it and a bottom face across which is secured a bed support. The bottom face has a series of ribs extending radially outward from a center portion of the face. The bed support is secured to the flow distributor about its outer periphery and this amount of available surface area of the flow distributor and/or face that is used to secure the bed support is less than about 10%. A distribution disk is arranged over the inlet and extends across from about 1 to about 30% of the flow distributor's surface area, ending just short of the inner edge of the ribs closest to the center point of the flow distributor face. This disk is mounted on two or more legs so as to be of substantially the same height as the ribs. The disk projects the fluid flow in a 360° radial distribution without any noticeable partitioning. The flow distributor allows one to run the column at higher velocities up to 1500 cm/hour while maintaining its integrity and a standard flow across the flow distributor and while having a low-pressure drop across the column.